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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,020	07/31/2001	James T. LaGrotta	12-21	3693

7590 02/23/2005

Docket Administrator (Room 3J-219)
Lucent Technologies Inc.
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

EXAMINER

UBILES, MARIE C

ART UNIT	PAPER NUMBER
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2642

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,020

Applicant(s)

LAGROTTA ET AL.

Examiner

Marie C. Ubiles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/31/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-12 and 14-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Bloom (US 6,323,980).

As for claim 1, Bloom discloses a RF base station apparatus (or picocell base station, See Fig. 2) comprising, first wireless RF communication equipment (for example, RF transceiver 13, Fig 2); and wireless optical communications (or optical transceiver 10) coupled to the first wireless RF communication equipment (See Fig. 2), the wireless optical communication equipment (or optical transceiver 10) being adapted to communicate signals between the first wireless RF equipment (or RF transceiver 13) and other equipment (or packet switch 12) of the RF base station (See Col. 5, lines 33-47), and the first wireless RF communication equipment and the other equipment being non-co-located (as read on "mounted on the roof")(See Col. 7, lines 18-19).

As for claim 10, Bloom discloses a RF base station (or picocell base station, See Fig. 2) comprising, an RF antenna (or RF antennae 18, 20, Fig. 4); first wireless optical communication equipment (or optical transceiver 10) coupled to the RF communication

equipment (See Fig. 2); a section of equipment of the RF base station (or “end office switch”) being at a significant distance from the antenna (See Fig. 14); second wireless optical communication equipment coupled to the section of equipment of the RF base station (See Col. 10, lines 44-52); and the first wireless optical communication equipment being adapted to communicate with the second wireless optical equipment (as read on “The communication channel or channels to the end office switch... may be free space optical...).

Regarding claim 17, Bloom discloses modulating a signal representing the RF signal onto an optical signal (reads into “a packet switch 12 for switching digital data among the RF transceiver and the four RF laser transceivers”)(See Col. 3, lines 44-46). The limitations regarding “receiving an RF signal at an RF antenna of an RF base station” reads into the functions performed by an RF transceiver (which receives and transmits RF signals) and “transmitting the optical signal by wireless optical communication equipment to a section of equipment of the RF base station” (the “section of equipment” reads into the “end office switch”) are disclosed by Bloom in Col. 3, line 44-46 and Col. 10, lines 44-52.

Claims 24 and 29 are rejected for the same reasons as claim 10, the recited “telescope” and “...telescope represent information...” are disclosed by Bloom in Col. 4, lines 29-32.

Claims 2, 18 and 25 are rejected for the same reasons as claim 10.

Claims 4-9, 11-12, 14-16, 19-23 and 26-28 are rejected for the same reasons as claim 29. Regarding the recited “RF-module” (or, for example, RF transceiver 13 and

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RF antennae 18-20), "telescope" (or "four-inch telescope"), and "processing and control section of the RF section" (or packet switch 12 and microprocessor 22) are disclosed in Figs 2-3 of Bloom. The recited "...a third wireless optical communication equipment..." reads on other "picocells" of a "megacell" (in this case, the "megacell" is acting as a base station) communicating with an "end office switch (See Fig. 14).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3, 13 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloom (US 6,323,980).

Bloom teaches that the communication between the "end office switch" and the "base station" may be free space optical (See Col. 10, lines 50-54). However, it does not mention what the distance should be between the aforementioned sections of equipment. In Col. 6, lines 50-59, Bloom teaches that laser communications are enabled for a distance of 115 meters. Thus, it would have been obvious to one of ordinary skill in the art that wireless optical communication of "at least 10 meters" may be possible between the "end office station" and the "base station".

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Trompower et al. (US 6,128,512) teaches a cellular communication system using infrared communication techniques.

Acampora (US 6,314,163 and US 6,049,593) teach a hybrid universal broadband telecommunications system using free-space optical links.


Gallagher, III et al. (US 5,959,531) teaches an optical interface in an RFID system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie C. Ubiles whose telephone number is (703) 305-0684. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marie C. Ubiles
February 21, 2005.


AHMAD MATAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600